

Notice of Allowability

Application No.

10/707,571

Examiner

David N. Spector

Applicant(s)

ZHANG ET AL.

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE (w/IDS; amendment) filed 11 April 2005.
2. ☒ The allowed claim(s) is/are 1-34.
3. ☒ The drawings filed on 22 December 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 20050411/0405
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other DETAILED ACTION.

David N. Spector
Primary Examiner
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DETAILED ACTION - ALLOWANCE***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under Ex Parte Quayle, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on April 11, 2005 has been entered.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on April 11, 2005 has been received and considered by the examiner.

Examiner's Amendment

An examiner's amendment to the record appears below to correct a minor typographical error which appears to have been inadvertently introduced into the claims coincident with filing the above-noted request for continued examination. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee. The application has been amended as follows:

In the Claims

(Claim 6, Line 7): replace the characters "20EC" with --20 °C--.

(Claim 26, Line 8): replace the characters "20EC" with --20 °C--.

Reasons for Allowance

Claims 1-34 are allowed. All claims thus being allowable, prosecution on the merits is closed in this application. A statement of the examiner's reasons for allowance is provided below which complement amendments/arguments which were also filed by applicant on April 11, 2005.

The instant application is deemed to be directed to a nonobvious improvement over the invention of Albert (U.S. Patent No. 6,392,786) disclosed by applicant as being a representative example in the art to which the instant invention pertains. Albert describes, *inter alia*, how spacers may be incorporated into a flexible electro-optic display medium to reduce the susceptibility of the medium to mechanical damage during repeated bending or flexing. The present invention provides particular improvements which may be used in place of, or in combination with, such spacers to reduce the susceptibility of said medium to such damage. In particular, the present invention provides:

- an encapsulated electrophoretic medium comprising plurality of capsules dispersed in a polymeric binder having a shear modulus of at least about 10 mPa at 20 °C (Claim 1, Lines 8-9);
- an electro-optic display comprising a layer of the aforesaid encapsulated electrophoretic medium (Claim 6, Lines 2-9);
- an electro-optic display comprising a plurality of spacers extending away from a supporting surface, a protective sheet contacting the ends of said spacers, and an electro-optic medium supported by said protective sheet (Claim 9, Lines 2-6);

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- a particular display comprising a plurality of spacers, tensioning members extending between at least two of said spacers, and an electro-optic medium supported by the tensioning members (Claim 15, Lines 2-9);
- an electrophoretic medium comprising a suspending fluid and a plurality of charged particles being present as a plurality of discrete droplets, the electrophoretic medium further comprising a continuous phase of polymeric binder surrounding said droplets and having a shear modulus of at least about 10 mPa at 20 °C (Claim 21, Lines 4-7);
- and an electro-optical display including an electrophoretic medium comprising a suspending fluid and a plurality of charged particles being present as a plurality of discrete droplets, the electrophoretic medium further comprising a continuous phase of polymeric binder surrounding said droplets and having a shear modulus of at least about 10 mPa at 20 °C (Claim 26, Lines 5-9).

The prior art taken either singly or in combination fails to anticipate or fairly suggest the limitations of applicant's independent claims, in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper. The claimed invention is therefore considered to be in condition for allowance as being novel and nonobvious over prior art.

Other Remarks/Information

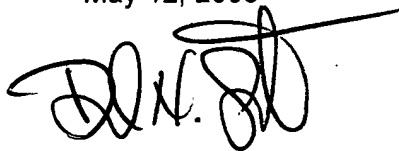
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any other inquiry concerning this communication or earlier communications from the examiner should be directed to David N. Spector whose telephone number is (571) 272-2338. The examiner can normally be reached at this number Monday through Friday between 6:00 AM and 2:30 PM. The fax number for the organization where this application is assigned is (703) 872-9306.

May 12, 2005

A handwritten signature in black ink, appearing to read 'D.N. Spector', with a long horizontal stroke extending to the right.

DAVID N. SPECTOR
PRIMARY EXAMINER